

IN THE CLAIMS:

Please amend the claims as indicated below.

1. (Currently Amended) The method of claim 36, further ~~In a communication network, a method for evaluating rules, the method~~ comprising the steps of:

determining one or more attributes of an entity, at least one of the attributes comprising location of the entity;

evaluating said one or more rules to produce one or more results, each of the one or more rules comprising one or more functions that operate on the one or more attributes of the entity; and

performing, based on the evaluation of the one or more rules, one or more actions specified for the one or more rules, wherein at least one of the actions comprises communicating the one or more results to said ~~an~~ application.

2. (Original) The method of claim 1, wherein the one or more functions comprise a plurality of functions combined through logical operators.

3. (Original) The method of claim 2, wherein each of the one or more functions evaluates to one of a plurality of states and wherein the rule evaluates to one of the plurality of states.

4. (Original) The method of claim 1, wherein there are a plurality of entities, each entity corresponding to one or more attributes, and wherein the one or more results comprise indications of which entities of the plurality of entities have attributes satisfying the one or more rules

5. (Original) The method of claim 1, wherein there are a plurality of entities, each entity corresponding to one or more attributes, and wherein the one or more results comprise indications of which entities of the plurality of entities have attributes resulting in a change in status of the evaluation of the one or more rules between a first evaluation of the one or more rules and a second evaluation of the one or more rules.

6. (Original) The method of claim 1, wherein the communication network comprises a wireless portion, the entity comprises a wireless device, and the entity communicates within the wireless portion of the communication network.

5 7. (Original) The method of claim 1, wherein:

there are a plurality of entities subscribed to the communication network; and

the step of evaluating is performed by a plurality of nodes in the communication network, each node evaluating rules over a subset of the entities.

10 8. (Original) The method of claim 7, wherein the plurality of entities are registered with the communication network so as to be able to communicate with portions of the communication network.

9. (Original) The method of claim 1, further comprising the steps of associating a  
15 side effect with the one or more rules and performing the side effect if the one or more rules evaluate to a predetermined one of a plurality of states.

10. (Original) The method of claim 1, further comprising the steps of:  
receiving a plurality of supplied rules;  
20 determining if evaluation of one or more given rules of the supplied rules produces one or more constant results for at least a selected time period; and  
preventing evaluation of the one or more given rules for the selected time period.

11. (Original) The method of claim 10, wherein the step of preventing evaluation  
25 further comprises the step of removing the one or more given rules from the plurality of supplied rules.

12. (Original) The method of claim 1, wherein the step of determining one or more attributes of an entity comprises determining the location of the entity.

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13. (Original) The method of claim 1, wherein the one or more attributes comprise a plurality of attributes, the plurality of attributes further comprising one or more of the following: a mobile station identification, a user identification, a subscriber class, a bearing, and a speed

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14. (Original) The method of claim 1, wherein the communication network comprises a plurality of nodes and wherein each of the plurality of nodes performs the steps of determining, evaluating, and performing one or more actions.

10 15. (Original) The method of claim 14, wherein the one or more rules comprise a plurality of rules, wherein a plurality of entities are associated with the communication network, and wherein the method further comprises the step of communicating the plurality of rules to each of the nodes.

15 16. (Original) The method of claim 15, wherein each of the nodes corresponds to a defined coverage region, and wherein the step of evaluating further comprises the step of a given one of the plurality of nodes evaluating rules for entities in a defined coverage region corresponding to the given node.

20 17. (Original) The method of claim 15, wherein each of the entities has a corresponding set of one or more rules, wherein a given one of the nodes determines which of the plurality of entities are within a coverage region corresponding to the given node, and wherein the given node performs the steps of determining one or more attributes of the entity, evaluating, and performing one or more actions for those nodes of  
25 the plurality of nodes that are within the coverage region and does not perform the steps of determining one or more attributes of the entity, evaluating, and performing one or more actions for those nodes of the plurality of nodes that are not within the coverage region.

30 18. (Original) The method of claim 15, wherein a first node corresponds to a first defined coverage region, a second node corresponds to a second defined coverage region,

a given entity has persistent data associated with the given entity, and the first node communicates the persistent data to the second node in response to the given entity leaving the first defined coverage region and entering the second defined coverage region

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19. (Original) The method of claim 1, wherein the step of performing one or more actions specified for the one or more rules further comprises the step of sending one or more messages to an application based on the one or more results, the one or more messages corresponding to the one or more results.

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20. (Original) The method of claim 1, wherein the one or more rules correspond to a plurality of entities, the step of evaluating further comprises the step of evaluating the one or more rules for the plurality of entities to produce one or more results, wherein the one or more results comprise one or more indications as to which of the plurality of entities has attributes satisfying the one or more rules, and wherein the step of performing further comprises the step of communicating one or more messages having the one or more indications to an application.

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21. (Original) The method of claim 20, wherein the one or more indications comprise a subscriber position record for at least one of the entities meeting the one or more rules.

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22. (Original) The method of claim 1, wherein the one or more attributes further comprises a subscriber identification, and wherein the one or more rules correspond to one or more geographical regions or one or more subscriber identifications.

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23. (Original) The method of claim 1, wherein the step of performing, based on the one or more results, one or more actions specified for the one or more rules further comprises the step of communicating a rule-triggered event to the application, wherein the rule-triggered event is specified for the one or more rules and corresponds to the entity.

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24. (Currently Amended) ~~The An~~ article of manufacture of claim 37, wherein said ~~for~~ evaluating rules, the article of manufacture comprising:

~~a computer readable medium containing one or more programs which when~~  
executed further implement the steps of:

5 determining one or more attributes of an entity, at least one of the attributes  
comprising location of the entity;

evaluating said one or more rules to produce one or more results, each of the one  
or more rules comprising one or more functions that operate on the one or more attributes  
of the entity; and

10 performing, based on the evaluation of the one or more results, one or more  
actions specified for the one or more rules, wherein at least one of the actions comprises  
communicating the one or more results to said ~~an~~ application.

25. (Currently Amended) ~~The~~ apparatus of claim 38, wherein ~~In a communication~~  
15 ~~network, an apparatus for evaluating spatial rules, the apparatus comprising:~~

~~at least one computer system comprising:~~

~~one or more memories; and~~

~~one or more processors coupled to the one or more memories, the one or more~~  
processors are further configured:

20 to determine one or more attributes of an entity, at least one of the attributes  
comprising location of the entity;

to evaluate said one or more rules to produce one or more results, each of the one  
or more rules comprising one or more functions that operate on the one or more attributes  
of the entity; and

25 to perform, based on the evaluation of the one or more results, one or more  
actions specified for the one or more rules, wherein at least one of the actions comprises  
communicating the one or more results to said ~~an~~ application.

26. (Original) The apparatus of claim 25, wherein the one or more functions comprise  
30 a plurality of functions combined through logical operators.

27. (Original) The apparatus of claim 25, wherein there are a plurality of entities, each entity corresponding to one or more attributes, and wherein the one or more results comprise indications of which entities of the plurality of entities have attributes satisfying the one or more rules.

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28. (Original) The apparatus of claim 25, wherein there are a plurality of entities, each entity corresponding to one or more attributes, and wherein the one or more results comprise indications of which entities of the plurality of entities have attributes resulting in a change in status of the evaluation of the one or more rules between a first evaluation  
10 of the one or more rules and a second evaluation of the one or more rules

29. (Original) The apparatus of claim 25, wherein the communication network comprises a wireless portion, the entity comprises a wireless device, and the entity communicates within the wireless portion of the communication network.

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30. (Original) The apparatus of claim 25, wherein:  
there are a plurality of entities subscribed to the communication network;  
the communication system comprises a plurality of nodes;  
the at least one computer system comprises a plurality of computer systems, each  
20 node communicating with one or more of the computer systems; and  
each computer system is adapted to evaluate rules over a subset of the entities.

31. (Original) The apparatus of claim 25, wherein the processor is further configured:  
to receive a plurality of supplied rules;  
25 to determine if evaluation of one or more given rules of the supplied rules produces one or more constant results for at least a selected time period; and  
to prevent evaluation of the one or more given rules for the selected time period.

32. (Original) The apparatus of claim 25, wherein the one or more attributes comprise  
30 a plurality of attributes, the plurality of attributes further comprising one or more of the

following: a mobile station identification, a user identification, a subscriber class, a bearing, and a speed

33. (Original) The apparatus of claim 25, wherein the at least one computer system  
5 comprises a first plurality of computer systems, the communication network comprises a second plurality of nodes, one or more of the nodes communicate with one or more of the computer systems, and each of the plurality of computer systems is adapted to determine, evaluate, and perform one or more actions.

10 34. (Original) The apparatus of claim 25, wherein the one or more processors are further configured, when performing, to send one or more messages to an application based on the one or more results, the one or more messages corresponding to the one or more results.

15 35. (Original) The apparatus of claim 25, wherein the one or more rules correspond to a plurality of entities, the one or more processors are further configured, when evaluating, to evaluate the one or more rules for the plurality of entities to produce one or more results, wherein the one or more results comprise one or more indications as to which of the plurality of entities has attributes satisfying the one or more rules, and wherein the  
20 one or more processors are further configured, when performing, to communicate one or more messages having the one or more indications to an application

36. (New) In a communication network, a method for evaluating rules, the method comprising the steps of:  
25 receiving one or more rules from an application; and  
sending a trigger to said application based on said one or more rules.

37. (New) An article of manufacture for evaluating rules, the article of manufacture comprising:  
30 a computer readable medium containing one or more programs which when executed implement the steps of:

receiving one or more rules from an application; and  
sending a trigger to said application based on said one or more rules.

38. (New) In a communication network, an apparatus for evaluating rules, the  
5 apparatus comprising:

at least one computer system comprising:  
one or more memories; and

one or more processors coupled to the one or more memories, the one or more  
processors configured:

10 receive one or more rules from an application; and  
send a trigger to said application based on said one or more rules.

39. (New) In a communication network, an apparatus for evaluating rules, the  
apparatus comprising:

15 at least one computer system comprising:  
one or more memories; and

one or more processors coupled to the one or more memories, the one or more  
processors configured:

20 receive one or more rules in one or more nodes; and  
reduce said one or more rules based on subscribers associated with one or  
more of said nodes.

40. (New) The apparatus of claim 39, wherein said rule reduction is based on a  
location of a node.

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41. (New) The apparatus of claim 39, wherein said rule reduction is based on one or  
more attributes of one or more of said subscribers.

42. (New) The apparatus of claim 39, wherein said rule reduction is based on a  
30 movement of one or more of said subscribers.

43. (New) In a communication network, a method for evaluating rules, the method comprising the steps of:

receiving one or more rules in one or more nodes; and

5 reducing said one or more rules based on subscribers associated with one or more of said nodes.

44. (New) The method of claim 43, wherein said rule reduction is based on a location of a node.

10 45. (New) The method of claim 43, wherein said rule reduction is based on one or more attributes of said one or more of said subscribers.

46. (New) The method of claim 43, wherein said rule reduction is based on a movement of one or more of said subscribers.

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